Possible References

Multicast transmission for software files over client/server network - involves partitioning data into blocks and frames for transmission over network and retransmitting frames according to server request
Patent Assignee: STARBURST COMMUNICATIONS CORP (STAR-N)
Inventor: CATES K; MILLER C K; ROBERTSON K; WHITE M

Patent Family (1 patents, 1 countries)							
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 5727002	A	19980310	US 1995375493	A	19950119	199817	B
			US 1996585948	A	19960116		

Abstract:
data transfer technique requires only negative acknowledgements to be sent by the recipients. Features include the ability to set the transmission rate and to define multicast groups. Also, it is possible to determine the capacity of links of unknown capacity using a "multicast network probe" feature of the invention, and to determine the frame error rates of known-capacity links by utilizing the same feature. A "multicast ping" feature of the invention can be used to determine the connectivity between a source and members of a multicast group. "Speed groups" can be set up after determining link capacities, or if they are already known, whereby the recipients connected to the source by the fastest links receive... common protocol suite in use in computer networks is TCP/IP, which is the protocol used in the Internet. TCP stands for Transmission Control Protocol, and IP stands for Internet Protocol. Two file transfer protocols are available in association with TCP/IP: (i) File Transfer Protocol (FTP) which runs as an application on top of TCP and (ii) Trivial File Transfer Protocol (TFTP) which runs on top of UDP. UDP stands for User Datagram Protocol. Both TCP and UDP are transport protocols which are responsible for end-to-end delivery of information across an internetwork, i.e., a network of networks... The files generally can be in any format. The data file is then read in from the tape or floppy into a file system of the transmission server. Note that the server must have sufficient space available to read in an uncompressed copy of the data file. For both services, the data file also can be encrypted so that noneligible receivers cannot receive and use the data file. Each transmission file preferably is uniquely identified... operates at the application layer of the TCP/IP protocol stack on top of UDP. The invention also could operate at the application layer above the connectionless transport layer present in other protocol stacks such as IPX in the NetWare SPX/IPX protocol suite. UDP stands for User Datagram Protocol, and it is the TCP/IP standard protocol that allows an application program on one computer to send a datagram to an application program on another computer. UDP uses the Internet Protocol (IP) to deliver datagrams. UDP datagrams differ from IP datagrams in that UDP datagrams include a protocol port number which allows the sender of the datagram to distinguish among multiple destinations (i.e., application programs) on the receiving computer. UDP datagrams also typically include a checksum for the data being sent... Basic Derwent Week: 199817

Application for Internet, includes instructions to open local firewall-window between UDP ports, in response to received null UDP packet, to transmit UDP packets containing user data to socket subsystem and transport layer

Patent Assignee: BOYLE S C (BOYL-I); CRYSTAL VOICE COMMUNICATIONS (CRYS-N); KIRCHHOFF D C (KIRC-I)

Inventor: BOYLE S C; KIRCHHOFF D C

Patent Family (2 patents, 1 countries)							
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
US 20030018912	A1	20030123	US 2001682084	A	20010718	200326	B
US 6978383	B2	20051220	US 2001682084	A	20010718	200601	E

Abstract:
A high-bandwidth direct communication path between two clients is used for voice or video calls over the Internet. An opening or a window in a firewall is made for the direct path by sending a null packet out from inside the firewall. The null packet can be a UDP packet directed to a UDP port of the other client. Initially, each client makes a TCP connection to port of an external manager. Each client registers its UDP port number with the external manager. A call request from one client to the external manager results in a message from the external manager to the other client. The other client then creates the window in its firewall by transmitting the null UDP packet. Then the external manager is notified and tells the calling client to begin sending UDP packets directly to the other client through the firewall window... ... PC can then begin sending UDP packets from its port to port of PC. Firewall allows these packets to pass through to PC since window has already been opened. UDP packets can be sent in the reverse direction from PC to PC using the same pair of UDP ports. Thus 2-way voice or video communication is facilitated ... ...

Data requests handling system in distributed data delivery network, controls routing of requested data from data server in network to user, based on modified data resource request obtained by modifying user's request

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Inventor: LAHR N; LAHR N B

Patent Family (10 patents, 93 countries)							
Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 2001055878	A1	20010802	WO 2001US2821	A	20010129	200224	B
AU 200136568	A	20010807	AU 200136568	A	20010129	200224	E
US 20020040366	A1	20020404	US 2000178750	P	20000128	200227	E
			US 2001770645	A	20010129		
EP 1252575	A1	20021030	EP 2001908727	A	20010129	200279	E
			WO 2001US2821	A	20010129		
JP 2003521067	W	20030708	JP 2001555354	A	20010129	200347	E
			WO 2001US2821	A	20010129		
MX 2002007310	A1	20031201	WO 2001US2821	A	20010129	200470	E
			MX 20027310	A	20020726		
AU 2001236568	A8	20050915	AU 2001236568	A	20010129	200569	E
US 7013322	B2	20060314	US 2000178750	P	20000128	200620	E
			US 2001770645	A	20010129		
MX 238162	B	20060626	WO 2001US2821	A	20010129	200680	E
			MX 20027310	A	20020726		
CA 2398499	C	20100824	CA 2398499	A	20010129	201057	E
			WO 2001US2821	A	20010129		

Abstract: ADVANTAGE - Improves the content delivery in the network by intercepting a **media** resource request **metafile** and intelligently rewriting the response

before sending the response to the **media** server or back to the requesting client. As the file is rewritten according to localized information such as resource availability and client original information within... A distributed network (12) which is capable of dynamically changing **media** resource request metafiles, as well as the responses to those **media** resource requests by **media** servers (14) in the network (10), to provide more efficient content delivery in the network (10). The network (10) employs a system and method for intercepting a **media** resource request metafile client request, or a response to the **media** resource request by a **media** server (14) in the network (10), and intelligently rewriting the response before sending it back to the requesting client. The file or protocol response can... ... can also tunnel **multicast traffic** by using **TCP** to **send stream information** and **data** to another **multicast**-enabled network. Thus, **broadcast** modules **transmit** corresponding subsets of the acquisition phase streams that are sent via the **multicast** cloud. In other words, the **broadcast** modules operate as gatekeepers for their respective transport paths... ... RTP is used for **transmitting** real-time **data** such as **audio** and **video**, and particularly for time-sensitive **data** such as **streaming media**, whether **transmission** is unicast or **multicast**. RTP employs **User Data gram Protocol** (UDP), as opposed to **Transmission Control Protocol** (TCP) that is typically used for non-real-time **data** such as file **transfer** and e-mail. Unlike with **TCP**, software and hardware devices that create and carry **UDP** packets do not fragment and reassemble them before they have reached their intended destination

Claims:
requested data from a data server in said distributed data delivery network to said user based on said modified data resource request, wherein said requested **data** remains **unmodified** through the delivery of the requested data from said data server to said user. Basic Derwent Week: 200224

Protocol conversion method for performing Internet telephony - using client to ISP links with TCP protocols and ISP to ISP links using UDP protocols to transfer telephony packets
Patent Assignee: AT & T (AMTT); AT & T CORP (AMTT); KATSEFF H P (KATS-I); ROBINSON B S (ROBI-I)
Inventor: KATSEFF H P; ROBINSON B S

Patent Family (5 patents, 20 countries)

Patent Number	Kind	Date	Application Number	Kind	Date	Update	Type
WO 1998042107	A1	19980924	WO 1998US4091	A	19980317	199844	B
US 6075796	A	20000613	US 1997819617	A	19970317	200035	E
US 6233249	B1	20010515	US 1997819617	A	19970317	200129	E
			US 2000565281	A	20000502		
US 20010009554	A1	20010726	US 1997819617	A	19970317	200146	E
			US 2000565281	A	20000502		
			US 2001797358	A	20010301		
US 6320875	B2	20011120	US 1997819617	A	19970317	200174	E
			US 2000565281	A	20000502		
			US 2001797358	A	20010301		

Abstract:
higher quality of service in applications such as Internet telephony. In one aspect of this approach, **transmission control protocol ("TCP")** is used to **send data** from a first user or client over standard telephone lines to a local Internet service provider ("ISP"). At the ISP, the **data** packets are **converted** from **TCP** to **user datagram protocol ("UDP")**. The **UDP** packets are then **transmitted**, typically over a higher bandwidth link to another local ISP serving the recipient. The **UDP** packets are translated back to **TCP** packets and routed to the receiver. Because many existing systems currently employ **UDP** packets, the present approach is largely **backwards** compatible should a recipient be hooked up to an ISP that does not employ a **TCP/UDP** converter. A bidirectional **TCP/UDP** converter is preferable for two way communication such as Internet telephony... ... **compression** algorithms do **not** presently **exist** for **user datagram protocol ("UDP")**... ... Basic Derwent Week: 199844